

Appl. No. 10/720,308
Amendment dated October 29, 2007
Reply to Office Action of June 29, 2007

TMI-5008

Amendments to the Claims:

This listing of claims will replace all prior versions and listing of claims in the application.

Listing of Claims:

1-32. (Canceled)

33. (New) A storage system comprising:

a plurality of disk devices configured to a plurality of storage volumes;

a network interface to be coupled to a computer;

a control unit coupled to the disk devices and to the network interface, and for processing a first instruction transmitted through the network interface; and

a memory coupled to the control unit,

wherein the control unit provides a plurality of virtual storage units related to the plurality of storage volumes to the host computer;

wherein when the first instruction indicates a particular virtual storage unit, the control unit determines whether or not the particular virtual storage unit is mapped to at least one storage volume of the plurality of storage volumes, and

wherein if the particular virtual storage unit is mapped to the at least one storage volume, the control unit provides the at least one storage volume as the particular virtual storage unit to the host computer.

34. (New) A storage system according to claim 33,

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wherein when the computer is booted, the at least one storage volume is mapped to the virtual volume for providing to the computer and at least another one of the storage volumes is not mapped to the virtual volume such that the computer can be booted without needing to recognize the another storage volume that is not mapped to the virtual volume.

35. (New) A storage system according to claim 34,

wherein the at least one storage volume is a non-removable storage device and the particular virtual storage unit is recognized by the computer as being loaded to a virtual disk drive for the computer as a removable storage device.

36. (New) A storage system according to claim 35,

wherein, based on receiving a second instruction from the computer for ejecting the particular virtual storage unit from the virtual disk drive, the control unit modifies a volume management table so that the control unit makes the computer recognize that the first storage volume is ejected, and

the control unit notifies the computer of completion of ejecting the first storage volume.

37. (New) A storage system according to claim 33,

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wherein the first instruction is sent from a management computer which is coupled to the storage system, and

wherein the control unit notifies the management computer of mapping of the at least one storage volume to the particular virtual storage unit.

38. (New) A storage system according to claim 33,

wherein the first instruction is sent from the computer.

39. (New) A storage system according to claim 33,

wherein, in response to receiving a verification command for confirming a type of the particular virtual storage unit in the storage system from the computer, the control unit sends a reply indicating that the particular virtual storage unit is provided as a removable storage medium even though the storage system has the plurality of non-removable storage devices.

40. (New) A storage system according to claim 33,

wherein, in response to receiving a verification command for verifying a type of the particular virtual storage unit of the storage system from the computer, the control unit sends a reply indicating that the particular virtual storage unit is a magnetic disk drive unit which handles a removable storage medium even though the storage system has the plurality of non-removable storage devices.

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41. (New) A storage system according to claim 33,

wherein a second storage volume is set as a replica volume of the at least one storage volume, and

wherein the control unit stores data into the at least one storage volume and the second storage volume if the control unit receives a write command for writing data to the particular virtual storage unit from the computer.

42. (New) A storage system according to claim 40,

wherein, in response to receiving a third instruction for stopping a replication from the computer, the control unit stops storing the data into the second storage volume.

43. (New) A storage system according to claim 36,

wherein a second storage volume is set as a replica volume of the at least one storage volume,

wherein the control unit stores data into the at least one storage volume and the second storage volume if the control unit receives a write command for writing data to the particular virtual storage unit from the computer, and

wherein, based on receiving the second instruction from the computer, the control unit stops storing the data into the second storage volume.